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## Destabilizing the Corrupt: US Sanctions and Their Conflict-Inducing Consequences

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# Destabilizing the Corrupt: US Sanctions and Their Conflict-Inducing Consequences

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# Destabilizing the Corrupt: US Sanctions and Their Conflict-Inducing Consequences

## Abstract

This study investigates the impact of U.S. economic sanctions on internal instability and conflict using a global sample. Our analysis, which includes cross-country and panel data from over 120 countries between 1996 and 2022, shows that economic sanctions increase the risk of internal conflict and political instability, but only in countries with high levels of public corruption. In contrast, sanctions have no significant effect on political stability in countries with lower levels of corruption. These results are robust across various model specifications, control variables, competing moderator, and alternative indicators of conflict. Our findings suggest that countries can strengthen their resilience to external financial pressures during sanctions by improving their control of corruption.

JEL-Codes: D730, D740, F510.

Keywords: global sanction, corruption, conflict, political instability.

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## 1. Introduction

Since the end of World War II, sanctions have emerged as a powerful geopolitical tool designed to exert pressure by imposing economic hardships that create frustration among the population (Tsouloufas and Rochat 2023; Hufbauer 2007). Key domestic groups, often regime supporters, may experience disruptions in the benefits they once received, further weakening their loyalty to the government (Mazaheri 2010; Peksen 2021). In addition, sanctions limit the financial resources of targeted governments, reducing their ability to fund the military or suppress dissent, which exacerbates political unrest (Allen 2008). This dynamic aggravates public grievances, consistent with Collier's grievance theory (Collier 2004), as high unemployment, poverty, and income inequality foster conditions ripe for political unrest, including protests, riots, and even civil wars.

While sanctions are intended to destabilize targeted regimes, evidence suggests that autocratic governments often use them to consolidate their power. Such regimes may prioritize scarce resources for loyal factions, facilitate smuggling, or monopolize key sectors. By controlling domestic resources and shaping propaganda, they effectively stifle dissent (Escribà-Folch 2012). For example, autocratic regimes often prepare for potential unrest by taking repressive measures and using propaganda to portray sanctions as a threat to national sovereignty (Marinov 2005; Peksen 2021). This phenomenon has been observed in cases such as Iraq and Iran, where governments have used sanctions to strengthen their grip on power.

Thus, there is an urgent need to more closely examine the relationship between sanctions and political stability<sup>1</sup>, taking into account factors such as the political structure of the target country, the intensity of sanctions, and whether sanctions are unilateral or multilateral (Allen and Lektzian 2013; Kaempfer and Lowenberg 2007; Marinov 2005). Although sanctions play an important role in regime change, policy enforcement, and aggression deterrence, empirical studies of sanctions impact on conflict or instability have largely overlooked the influence of domestic institutional factors-particularly the extent of political and administrative corruption.

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<sup>1</sup> In this study, we use the terms "political instability" and "conflict" interchangeably.

Our focus on the destabilizing role of corruption in the sanction-conflict nexus is grounded in well-established theoretical explanations. Corrupt political systems suffer from inefficiencies in the allocation of scarce resources (Aidt 2009). For example, public budgets are often channeled into military and security projects with limited transparency (Gupta, de Mello, and Sharan 2001), leading to underfunding of education and health care. Corruption also leads to misallocation of talent, rewarding rent-seeking and unproductive activities (Ebeke, Omgba, and Laajaj 2015). The quality of public goods and services deteriorates in corrupt political systems, as funds go to the wrong projects and national project monitoring is weakened (Lambsdorff 2007). In addition, corruption undermines public confidence in governance, increasing the risk of instability (Peksen 2021). Corruption has also been shown to cause environmental damage (Tacconi and Williams 2020), increase income inequality (Gupta, Davoodi, and Alonso-Terme 2002), and reduce public satisfaction with services. Together, these effects reduce the opportunity cost of engaging in violence, particularly among youth (Farzanegan and Witthuhn 2017).

Rising perceptions of corruption and deeper social media penetration reduce barriers to mass mobilization for protest. Enhanced global education has raised expectations of political systems and increased awareness of social and political rights. Corrupt administrations often fail to meet these expectations, fueling public frustration and elevating the risk of revolt. Such heightened conflict and violence risks impose substantial economic costs. For example, studies indicate that the Arab Spring revolutions—largely driven by anger over corruption (Ghanem 2016)—resulted in significant income losses (Echevarría and García-Enríquez 2020). Moreover, episodes of civil unrest and riots may escalate into major conflicts, such as interstate wars, resulting in even greater income losses for affected countries (Farzanegan 2022a).

Our study shows that countries with higher corruption levels are particularly vulnerable to external economic shocks—such as sanctions. These cross-country findings are robust, holding across regression estimations, panel fixed effects models, and tests with alternative measures of conflict and corruption.

The rest of the paper is organized as follows: Section 2 reviews the literature on the impact of sanctions and corruption on political instability and conflict. Section 3 presents the data and methodology. Section 4 explains the results. Sensitivity checks are presented in Section 5. Section 6 concludes the study.

## **2. Literature review**

Our study intersects two strands of literature: the link between sanctions and political (in)stability and the relationship between corruption and political (in)stability. Below, we provide a brief review of the theoretical foundations of each area. We then integrate these theoretical perspectives to explore how corruption influences the link between sanctions and instability. Table A1 in the Appendix A summarizes contributions from the literature on the relationship between political stability and sanctions.

### **2.1. Sanctions and political stability**

Despite the rich literature on the relationship between political stability and economic sanctions, the full picture of this relationship remains unclear. On the one hand, economic sanctions are expected to impose a devastating economic burden on the target country. Research indicates that these measures destabilize the targeted regime, pressuring it to change its policies or face removal from power. This economic hardship originates from disrupting supply chains, preventing economic specialization, restricting capital inflows, and encouraging international investment outflows, all of which have serious consequences (Hufbauer, 2007). Countries targeted by U.S. financial sanctions often face limited to no access to financial markets and networks such as the Society for Worldwide Interbank Financial Telecommunication (SWIFT) (Janeba 2023), along with restrictions on accessing loans from the International Monetary Fund (IMF) or the World Bank (Peksen and Woo 2018). Furthermore, economic sanctions are associated with an increase in inflation due to disruptions in supply chains, scarcity of goods, rising production costs, and destabilization of the foreign exchange market (Cooter 1984; Ghorbani Dastgerdi, Yusof, and Shahbaz 2018; Zamani et al. 2021).

Sanctions lead to a rise in unemployment (Al-Shammari and Willoughby 2019), widening poverty gaps (Gutmann, Neuenkirch, and Neumeier 2023), and increasing income inequality (Afesorgbor and Mahadevan 2016). Inflation erodes purchasing power, combined with worsened economic conditions,

contributes to widespread frustration among the population, and lowers the opportunity cost for political unrest. Based on Collier's grievance theory, these circumstances create fertile ground for political instability (Collier 2004; Hejazi and Emamgholipour 2020). Evidence from Iran using a VAR model showed that intense sanctions have led to destabilization in the short term, increasing the risk of civil disorder and terrorism (Farzanegan and Gutmann 2024). Similarly, Choi (2014) links economic sanctions with a rise in domestic terrorist attacks.

Sanctions significantly constrain the targeted government's financial, limiting their ability to fund key areas such as military operations and repressive campaigns (Allen 2008). In Iran, one of the most sanctioned countries, an increase in sanctions intensity have had a decreasing effect on military spending (Dizaji and Farzanegan 2021; Farzanegan 2022b). Sanctions also constrain government budgets for social programs and subsidies. Subsidy cuts were found to be one of three significant drivers of protest in the Middle East (Al-Shammari and Willoughby 2019).

On the other hand, it is not straight forward if people would blame the government for the economic hardship and translate this frustration into political action. Public perception can perceive sanction as an attack on sovereignty and the cause of their economic suffering, particularly in cases where the targeted government exerts control over media outlets and propagate this narrative. In Russia support for Putin after the 2014 increased by 13% in regions bearing the greatest burden of the economic sanction in comparison to unaffected regions (Gold, Hinz, and Valsecchi 2024). The author argued that this increase in voting for Putin was at the expense of predominantly conservative and nationalist parties, thereby illustrating the rally-around-the-flag effect.

Furthermore, sanctions can also reshape the strategic landscape of conflicts. For instance, the decline in the targeted government economic gains decreases the incentives for both remaining in power or orchestrating an overthrow (Gershenson 2002). When both opposition and incumbent government are affected by sanctions it further hinders their ability to sustain military operations, thus affecting the duration of the civil war. More effectively institutional sanctions, such as UN imposed sanctions, promote a negotiated resolution to the civil war, as they tend to be less biased toward party in the conflict (Escribà-Folch 2010).



## **2.2. Corruption and political stability**

Corruption is contradictory in its connection to political stability, acting as both a destabilizing force and a tool for maintaining power. To explore this relationship further, it is crucial to define corruption first. Two definitions of corruption have been widely used in literature: one definition describes corruption as actions that deviate from the official responsibilities of a public position in order to secure personal, familial, or group-based advantages in wealth or social status (Nye 1967). Similarly, corruption is defined as the misuse of public office for personal benefit, such as financial or material gain (Shleifer and Vishny 1993).

Corrupt leaders use corruption to provide rent opportunities for loyalists, rewarding rent-seeking and unproductive economic activities (Ebeke, Omgba, and Laajaj 2015). Governments often co-opt opposition groups driven by greed by sharing resources through corrupt channels such as embezzlement and favoritism. This approach increases the opportunity cost of violence, reduces the incentives for rebellion, and undermines the legitimacy of corrupt rebel leaders (Andvig, 2007; Asongu, 2013).

Corruption increases leaders' ability to root themselves in the system, gaining more control and power over governmental institutions (Neudorfer and Theuerkauf 2014). Hybrid regimes often gain support and bolster their popularity by embedding corruption in various governmental structures, thereby hindering democratization (Fjelde 2009). For example, members of parliament in Peru were found to receive second salaries as illegal inducements (Fjelde and Hegre 2014).

Nevertheless, stability built on corruption tends to be fragile, as it relies on unsustainable practices that can promote grievance and erode trust in the government. Corruption directed at greedy rebel groups reduces the likelihood of conflict. However, when power holders grow more affluent, the incentive for greedy rebels to act increases. As public resources are channeled to a particular group of people, political and economic inequalities increase (Gupta, Davoodi, and Alonso-Terme 2002). These inequalities lead to marginalization and alienation of certain ethnic communities, raising the risk of conflict and terrorism. In several African countries, for example, ethnic and economic exclusion associated with corruption has been a major driver of civil war (Asongu 2013; Azam 2006).

When corruption is rooted in the system, public resources get diverted to private pockets, undermining the government's ability to provide essential public goods (Welsch 2008). Furthermore, corruption leads to misallocation of public resources encouraging rent-seeking activities and rewarding inefficient projects, further deteriorating economic conditions (Aidt 2009; Farzanegan and Witthuhn 2017). This, in turn, fuels grievance and lowers the opportunity cost of protesting, facilitating collective action. Evidence from the Arab Spring has found that protests were primarily driven by anger over corrupt governments (Ghanem 2016).

### **2.3. Corruption as a moderator for instability effects of sanctions**

In many cases, inflicting economic hardship via sanctions to induce grievance-based violence towards incumbent governments is effective. However, this effectiveness depends on factors like the intensity of the imposed sanction, the size of trade between sanction senders and receivers, and, most importantly, the political structure of the targeted government (Gershenson 2002; Marinov 2005; Peksen 2021). For instance, authoritarian leaders implement different strategies to coup with sanctions compared to democratic countries, such as unleashing the military and police on protests and opposition, impressment, and torture to increase the opportunity cost of protesting. Further, in worse cases the sanction allows them to even strengthen their power on the expense of weaker group in the society (Eichenberger and Stadelmann 2023; Escribà-Folch 2009). Nevertheless, a key element—corruption—has been overlooked in the empirical literature when examining institutional conditions that may moderate the effects of sanctions on instability.

Corruption plays a central role in moderating the relationship between economic sanctions and political instability. While corruption may initially provide regimes with mechanisms to maintain stability under sanctions, these strategies are often unsustainable and may ultimately backfire. For example, opposition groups co-opted through corrupt means may use corrupt resources to strengthen their own power bases and eventually challenge the state.

Favoritism and nepotism often lead to the appointment of incompetent officers, reducing the effectiveness of the operational military and police and compromising their ability to maintain order

(Andvig, 2007; Azam, 2006). Thus, when sanctions exert economic pressure on an already burdened population, the government lacks the effectiveness to counter political instability (Peksen, 2021).

Police corruption, especially when combined with commercial corruption, facilitates the growth of organized crime, paving the way for large-scale violence and rebellion (Andvig 2007). For example, weapons used in such conflicts are often obtained through smuggling networks or bribery involving official military personnel, while rebel groups may obtain critical intelligence from corrupt government officials.

Corruption undermines people's trust in their government (Kartiko 2024). This erosion of trust can weaken the people's incentives to rally around their leaders, shifting their perception of sanctions from being viewed as an attack on national sovereignty to a form of support for their struggle against corrupted leaders. Finally, the negative effect of corruption on individuals' well-being, happiness, and economic conditions (Gupta et al., 2002; Welsch, 2008) ultimately intensifies the frustration and grievance caused by economic sanctions.

To date, no empirical evidence supports the moderating role of corruption between economic sanctions and political instability. To close this gap and build on the previous arguments, we propose that corruption amplifies the harmful effects of economic sanctions on political instability.

### **3. Hypothesis, data and methodology**

Our primary hypothesis suggests that the impact of sanctions on instability is influenced by the level of corruption. Countries with higher levels of administrative corruption perception are more likely to experience significant instability and internal conflict as a result of imposed sanctions, *ceteris paribus*.

We examine our hypothesis using both cross-country and panel data regression analyses. The study covers the period from 1996 to 2022 and includes a sample of over 120 countries.

We use various indicators of political instability and conflict as dependent variables in our main analysis and sensitivity checks. Our primary measure is the political stability and absence of violence/terrorism index from the World Governance Indicators (World Bank 2024), capturing perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. It aggregates multiple indicators that assess the perceived probability of the incumbent government facing

destabilization or removal through potentially unconstitutional or violent means (Kaufmann, Kraay, and Mastruzzi 2011). We rescaled this variable by multiplying the observations by -1, yielding scores ranging from approximately -2.5 to 2.5, where higher scores indicate greater political instability.

For sensitivity checks, we use internal conflict, external conflict, and government stability scores from the International Country Risk Guide (ICRG) (The PRS Group 2023). The internal conflict score reflects developments in civil disorder, terrorism/political violence, and civil war/coup threat risk. The external conflict index reflects developments in the risk of war, cross-border conflict, and foreign pressures. The government stability index reflects developments in government cohesion, legislative strength, and popular support. All scores are rescaled, with higher values indicating a higher risk of conflict and government instability.

Our key explanatory variables are the U.S. imposed economic sanctions, corruption, and the interaction term between these two variables. For extracting sanctions data, we use the Global Sanctions Database-GSDB- (Felbermayr et al. 2020), focusing on trade embargo and financial sanctions imposed by the U.S. The GSDB categorizes sanctions by type (e.g., trade, financial, travel, and military), allowing us to isolate economic sanctions. We emphasize on the U.S. sanctions given its influence over global financial transactions, the dominance of the dollar, and the scale of U.S. trade (Janeba 2023; Kirikakha et al. 2021). Accordingly, to calculate the U.S. economic sanctions variable, we assigned a value of one to each year in which a country was under U.S. financial or trade sanctions and zero otherwise, then calculated the mean across all years to reflect the long-term impact of sanctions. Since we use the data average from 1996 to 2022, this index ranges between 0 and 1. A value of zero indicates that a country was not subject to U.S. economic sanctions from 1996 to 2022, while a value of one indicates continuous sanctions throughout this period.

We employ the ICRG Corruption Index to measure corruption. The index captures actual and potential corruption, particularly in the form of patronage, nepotism, job reservations, reciprocal favors, undisclosed party funding, and unduly close relationships between politics and business. Based on assessments by country experts, this measure is highly correlated with other corruption indicators and cross-country surveys of businesses and households (Treisman 2000).

The index was initially scored from 0 (most corrupt) to 6 (least corrupt). To enhance interpretability and ensure alignment with other variables, we rescaled it by subtracting the original values from 6. Thus, higher values mean higher levels of corruption.

Following earlier studies such as Farzanegan & Witthuhn (2017), we also control for other determinants of political instability or conflict such as share of youth (15-24 years) population in adult population, income inequality (Gini index), GDP per capita, oil rents, inflation and unemployment rates, secondary school enrolment rate, military spending, democracy (Polity index) (and its squared term), and regional dummies. Moreover, we have controlled for competing interaction terms such as interaction between sanctions and democracy and sanctions with youth bulge.

Oil rents play a significant role in political stability; several studies have linked oil dependency to political instability (Farzanegan, Lessmann, and Markwardt 2018; Fjelde 2009; Ross 2012). Oil-dependent nations have a unique political and economic structure, which makes these nations more vulnerable to political instability. Ross highlights various mechanisms through which oil dependency can fuel instability in oil-rich countries. For instance, oil theft has helped militias in several countries, such as Nigeria, to finance their activities and recruit more people. Furthermore, grievances among residents in oil-rich regions arise when they feel more harmed by oil extraction activities and excluded from oil revenues, leading to separatist movements or rebellions, such as the case of South Sudan (Ross, 2012). Finally, oil revenues allow governments to fund their repressive behavior, increase corruption levels, and hinder democratization and economic growth (Escribà-Folch 2009; Ross 2012). To measure oil rent, we use data from the World Development Indicators (World Bank, 2023), calculated as oil rents as a percentage of GDP.

GDP per capita serves as a crucial indicator of a country's economic health and stability. While several studies suggest that a high GDP per capita typically correlates with a lower likelihood of corruption and conflict (Collier 2004), there are complexities in this relationship. For example, some research suggests that in poorer countries, rising income levels may exacerbate inequality, fostering political instability and corruption (Gutmann, Neuenkirch, and Neumeier 2023). The GDP per capita indicator captures the economic conditions within a country. We use data from the World Bank's World Development Indicators to measure GDP per capita.

Economic conditions, such as unemployment and inflation, are vital in shaping political stability. These factors influence the public's political behavior and the likelihood of instability. High inflation reduces purchasing power, while elevated unemployment increases economic insecurity, both of which can generate public dissatisfaction and contribute to political unrest (Al-Shammari and Willoughby 2019; Collier 2004; Cooter 1984). In our model, unemployment is measured as the percentage of total unemployed individuals actively seeking jobs relative to the total labor force. We measure inflation by using the annual percentage change in the consumer prices index. Both variables are extracted from the World Bank's World Development Indicators.

The "youth bulge" is an important demographic factor, often associated with higher rates of political instability. Two approaches are typically used to measure the youth bulge: the share of youth aged 15–24 in the total population, and the share of youth within the adult population (ages 15 and older). The latter method is considered more reliable, particularly in high-growth populations, as it excludes children under 15 (Farzanegan and Witthuhn 2017; Urdal 2006). The youth bulge is often viewed as a predictor of conflict, as young people tend to perceive a lower opportunity cost in engaging in violence, a phenomenon notably seen in the Arab Spring protests (Farzanegan and Witthuhn 2017; Kaphahn and Brennan 2017; Urdal 2006). Further, we examine the interaction term of youth bulge and sanctions as a competing hypothesis to our main hypothesis. The underlying argument is that the economic sanctions may have a greater destabilizing effect in countries with higher share of youth bulge, as they have a lower opportunity cost of engaging in conflict. To calculate youth bulge indicators, we use data extracted from Our World in Data (Ritchie et al. 2024).

The relationship between secondary education and political instability is complex. Although a higher percentage of the population with secondary education attainment often contributes to economic development, the rapid expansion of secondary education in regions with weak political institutions may also fuel frustration if demands for employment are not met, leading to increased corruption or violent rebellion (Collier 2004; Peksen 2021). Unemployed individuals with secondary education are more likely to engage in political activity than their peers, increasing the probability of unrest (Barakat and Urdal 2009; Collier 2004), further increasing the risk of political unrest..

Military expenditure is another crucial variable influencing government stability. In autocratic regimes, high military spending is essential to maintain power and repress opposition, whereas in democratic regimes, it serves as a public good for national security. Nonetheless, significant military spending often diverts resources from social services, thereby fueling public grievances. Additionally, elevated military expenditure can increase corruption risks, undermining national security over time (Escribà-Folch 2009). We control for military expenditure as a percentage of GDP, using data from the World Bank's World Development Indicators (WDI).

The Gini coefficient, a measure of market income inequality, is associated with increased political instability and is considered a significant cause of civil wars worldwide (Azam 2006). The Gini coefficient provides a standardized measure of income inequality before taxes and transfers across different countries for cross-country comparisons (Solt 2016). We extracted the Gini coefficient from the Standardized World Income Inequality Database (SWIID). The measure ranges from 0 to 100; the higher the score, the greater the level of income inequality.

A country's political system is a crucial control variable to examine the risk of political instability. The level of democracy is found to have a nonlinear relationship with political instability. It follows an inverted U-shaped pattern, suggesting that both full authoritarian and full democratic regimes are less likely to experience conflict compared to mixed regimes (Fjelde and Hegre 2014; Urdal 2006). To control for this variable, we use the Polity IV index, which ranges from -10 (full autocracy) to +10 (full democracy), reflecting the mixed nature of many political systems (Marshall 2017). We further include the Polity IV squared to capture the U-inverted relationship. Another competing interaction term is between sanctions and type of political regime. We control for this interaction term in our analysis. We expect that in countries with higher levels of democracy the imposed sanctions (for a variety of reasons) may be more destabilizing. Democratic regimes have more open political environments, allowing opposition groups, civil society, and media to mobilize and express dissent more freely. In authoritarian regimes, by contrast, repression limits public expression of grievances, muting the immediate instability effects of sanctions. Democracies rely on electoral legitimacy; economic hardship caused by sanctions may lead to voter dissatisfaction, protests, or even electoral defeat for incumbents. Leaders in democracies have weaker repressive tools compared to authoritarian regimes, making them more

vulnerable to instability.<sup>2</sup> Finally, regional dummies are included to control for regional fixed characteristics. These regional dummies account for unobserved regional heterogeneity. Countries within the same region tend to share historical, cultural, political, and economic characteristics that may systematically influence political instability. For example, countries in the Middle East & North Africa (MENA) region share more authoritarian regimes, oil dependence, and history of external interventions. Countries in the Sub-Saharan Africa region share post-colonial legacies. We control for some of these characteristics such as oil rents dependency. Without regional dummies, unobserved omitted regional factors may bias the estimated effects of sanctions and corruption on instability.

The estimation methodology is ordinary least squares (OLS). We use robust standard errors which correct for heteroskedasticity. To assess whether the relationship between US sanctions and instability varies systematically on the long run, depending on the level of corruption, we employ the following specification in Eq. (1):

$$Instability_i = \beta_1.Sanction_i + \beta_2.Corruption_i + \beta_3.(Sanction_i \times Corruption_i) + \beta_4.Z_i + \varepsilon_i \quad (1)$$

The marginal effect is then calculated based on Eq. (2):

$$\frac{\delta (Instability_i)}{\delta (Sanction_i)} = \beta_1 + \beta_3.Corruption_i \quad (2)$$

We expect a positive and significant coefficient for the interaction term (i.e.,  $\beta_3 > 0$ ), indicating that sanctions are more destabilizing in targets with higher levels of public corruption. When sanctions hit, the corrupt elite often evaded their impact through illicit means, such as smuggling or black-market dealings, while the general population bore the burden of the economic decline<sup>3</sup>. This disparity fueled

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<sup>2</sup> Iran is an example that has been subject to extensive U.S. and international sanctions, particularly targeting its oil exports, banking sector, and foreign trade (e.g., post-2018 "maximum pressure" campaign). Sanctions have contributed to inflation, currency devaluation, and economic contraction, increasing social grievances (Farzanegan and Batmanghelidj 2023). Protests have erupted repeatedly, often triggered by economic hardship (e.g., 2019 fuel price protests, 2021 water shortages protests, 2022 Mahsa Amini protests). However, the regime has been able to suppress opposition through strong security forces (IRGC, Basij), media censorship, and political repression. In other words, at the absence of repressive power of regime, the sanctions and high corruption could be even more destabilizer in the practice. On the nexus between conflict and corruption in Iran see Farzanegan & Zamani. (2024).

<sup>3</sup> An example is the case of Babak Zanjani in Iran. Babak Zanjani's name has long been linked to the indirect methods employed by the Iranian economy to circumvent sanctions imposed by the United States and the United Nations in order to export its oil, a process through which he accumulated a substantial fortune. Read more at <https://www.aljazeera.com/opinions/2016/3/10/babak-zanjani-and-the-complicity-of-iran>



public unrest and eroded trust in the government, further destabilizing the country. We also expect to observe a positive coefficient for both sanction and corruption variable in the absence of interaction term (i.e.,  $\beta_1$  and  $\beta_2 > 0$ ).

We further test our hypothesis with a panel dataset to gain a broader perspective on the dynamic relationship between sanctions and political instability and the moderating role of corruption. We estimate the model using fixed effects regression, controlling for country- and year-fixed effects to address potential omitted bias. Given the slow-changing nature of variables such as instability, corruption, and sanctions, we used 3-year averages of the data. To ensure the robustness of the model, we examined potential econometric concerns. First, we conducted a White test for heteroskedasticity, indicating the necessity of robust standard errors. Second, to examine stationarity, we employed Fisher-type panel unit root tests for each variable, using both Augmented Dickey-Fuller and Phillips–Perron methodologies at different lag lengths and with or without a trend. The results identified non-stationary behavior in the logarithm of GDP per capita, oil rent, youth bulge, and unemployment. To address this, we applied first-difference transformations to these variables to mitigate the risk of spurious regression.

#### **4. Results**

Our main results are shown in Table 1. Regional dummies are included in all models. As shown in Model 1, the overall effect of US economic sanctions on the political instability index is positive and statistically significant. A shift from 0 (no US sanctions) to 1 (US sanctions imposed) is associated with an increase of 1.1 units in the political instability index, which is a notable effect. In Model 2, we control for a corruption index, which shows a significant positive effect on political instability. Accounting for corruption reduces both the size and statistical significance of the effect of US economic sanctions.

In Model 3, we introduce the interaction term between economic sanctions and corruption and retain this term in all subsequent models, which leads to an interesting result: the combined effect of sanctions and corruption is positive and highly statistically significant. In the absence of corruption, U.S. sanctions have no destructive effect on a country's political stability. At lower levels of corruption, such foreign pressure may even reduce political instability, possibly due to rally-around-the-flag effects and heightened nationalist sentiments during external pressure. Corruption retains a positive effect on

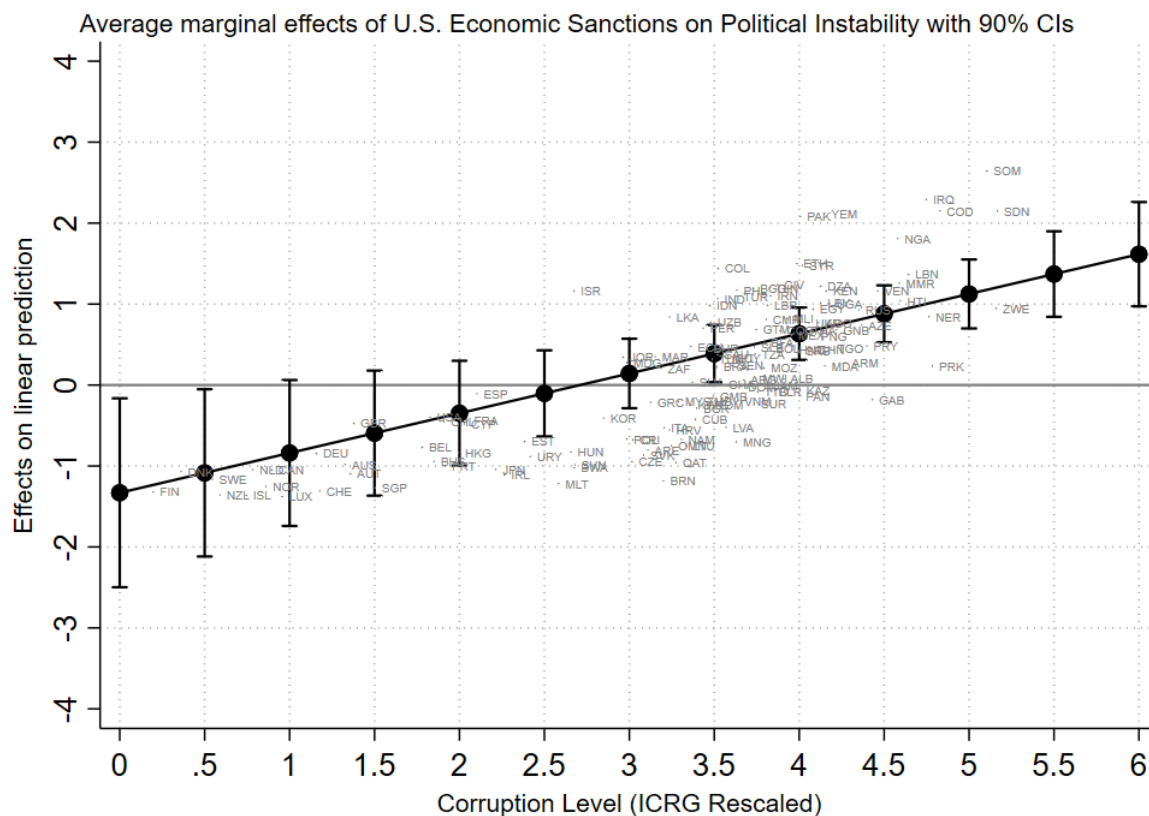
political instability in all models, while the positive interaction between sanctions and corruption remains robust in models 4-7, which control for other determinants of instability.

Among the control variables, the interaction term between the youth bulge and sanctions is positive and significant, indicating that a higher share of youth bulge in adult population amplifies the destabilizing effect of sanctions. Additionally, the interaction between sanctions and polity index is significant and positive. Countries with higher levels of democracy will be more unstable if the sanctions are imposed on them. In democracies, governments are accountable to the electorate. Sanctions may lead to economic hardships, causing public discontent and increasing pressure on the government. As opposition groups exploit this dissatisfaction, instability can grow. In democratic systems, there are often diverse views on how to handle external pressure. Sanctions can polarize public opinion, exacerbating political divides and leading to domestic unrest. Moreover, democratic systems often have more transparent processes and more vocal civil societies. When sanctions are imposed, the public expects their government to respond effectively, and failure to do so can undermine public trust, triggering instability. Finally, the sign of estimated coefficient of squared term of polity index support the nonlinear relationship between regimes type and instability suggesting the notion that both authoritarian and full democracies are more stable compared to other government types, *ceteris paribus*. As expected, income per capita shows a decreasing effect on instability. Income inequality is also positively associated with instability in Model 7, but only marginally. Unemployment rate in Model 7 shows a negative association with political instability. This is not necessarily against the expectation. Governments in countries with high unemployment may use social welfare programs, patronage systems, or other forms of economic support to quell dissent. People may be less likely to engage in protests or destabilizing activities if they receive state support. Under the weak job market conditions, people may also prioritize securing basic livelihood over political activism.

The explanatory power of the models in explaining cross-country variation in political instability increases from 42% in Model 1 to 80% in Model 7, based on adjusted R-squared values. The sample of countries included remains the same in all models based on the general Model 7.

To better understand the moderating effect of corruption on the impact of U.S. economic sanctions on political instability, Figure 1 shows the marginal plot and associated statistical significance of the

marginal impact based on the estimates from Model 7. We observe that U.S. economic sanctions destabilize political systems only in countries with higher levels of corruption. In addition, a scatterplot of instability against the rescaled ICRG corruption index highlights countries in the corruption "danger zone" where the risk of instability is significantly high if sanctions are imposed. The effect on instability is not statistically significant for countries with low or moderate levels of corruption.



**Table 1. Cross country regression- Political instability and economic sanctions: moderating role of corruption (1996-2022)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent Variable: Political Instability (WGI)							
U.S. Economic Sanction	1.135*** (4.162)	0.397 (1.563)	-2.079*** (-2.681)	-2.033*** (-2.828)	-2.162*** (-3.007)	-2.520*** (-3.539)	-2.736*** (-3.796)
Corruption (ICRG)		0.516*** (10.354)	0.429*** (9.997)	0.251*** (3.802)	0.281*** (4.218)	0.215*** (3.270)	0.218*** (3.222)
Sanction × Corruption			0.666*** (3.636)	0.644*** (3.995)	0.518*** (2.872)	0.465*** (2.698)	0.491*** (2.910)
log (GDP pc)				-0.135 (-1.579)	-0.138 (-1.604)	-0.122 (-1.438)	-0.156* (-1.865)
Oil rents % GDP				0.000 (0.028)	0.001 (0.090)	0.002 (0.340)	0.006 (0.989)
Youth bulge				0.038*** (2.756)	0.028* (1.719)	0.010 (0.645)	0.006 (0.330)
Sanction × Youth bulge					0.024 (1.305)	0.039** (2.235)	0.043*** (2.623)
Military spending % GDP						0.059 (1.344)	0.062 (1.408)
Polity						-0.013 (-0.737)	-0.014 (-0.798)
Sanction × Polity						0.067** (2.245)	0.078** (2.514)
Polity^2						-0.005** (-2.199)	-0.006*** (-2.672)
Gini index							0.016* (1.929)
Inflation							0.000 (0.019)
Secondary school							0.001 (0.513)
Unemployment							-0.024** (-2.144)
Adj.R2	0.42	0.66	0.70	0.75	0.75	0.79	0.80
Obs.	126	126	126	126	126	126	126

Note: OLS is the estimation method. Constant term and regional dummies are included but not reported. Robust t-statistics are shown in (). \*\*\*, \*\*, \* denote statistically significant at 1%, 5%, and 10%, respectively.

Table A2 in the Appendix presents the results of the three-year average panel regression with both country- and year-fixed effects across all models. In Model (1), U.S. economic sanctions alone do not show a robust effect on political instability, differing from Model 1 in the cross-country regression and reflecting the importance of controlling for fixed effects. It may also suggest that the effects of sanctions on instability is stronger when we look at long term averages across countries rather than short term within country effects captured by fixed effects regression. In the short run, the impact of sanctions on political instability might be diluted by various factors, such as temporary economic adjustments, resilience strategies, or the government's ability to suppress dissent. Fixed effects regressions, which focus on within-country variation over time, capture these short-term dynamics. However, the long-term effects of sanctions might become more evident as their cumulative impact on economic conditions, governance, and social structures unfolds, leading to greater instability.

Corruption, introduced in Model (2), also appears insignificant. However, from Model (3) onward, most models' interaction term (Sanction  $\times$  Corruption) is positive (as expected) and statistically significant. This significance of the interaction term supports the findings in the cross-country model and indicates that corruption amplifies the destabilizing effect of U.S. economic sanctions even in short term within country estimations.

## **5. Sensitivity Analysis**

### **5.1. Robust regression & Jackknife robustness test**

To enhance our analysis and reduce the effects of possible outliers, we re-evaluate our initial OLS estimations using robust regression methods. These techniques are well-suited for handling substantial data contamination while still producing reliable parameter estimates. We use robust estimators, such as the MM estimator developed by Verardi & Croux (2009), and a methodology introduced by Jann (2022). In particular, we utilize Jann's high breakdown-point estimators, including the Huber, Bisquare M, and S estimators. These are known for their combination of high efficiency and robustness to outliers. Additionally, they offer robust standard errors based on influence functions. We also compare the outcomes from these robust techniques to those obtained from OLS estimations, which are recalculated using robust standard errors.

To further validate the robustness of our findings, we conduct a Jackknife robustness test. This approach involves systematically excluding one or more countries from the analysis in each iteration, repeating this process until all countries have been removed once. Essentially, this technique serves as a leave-one-out analysis and a standard resampling method for assessing the stability of estimates, particularly when dealing with potential outliers.<sup>4</sup>

In Table A3 of Appendix A, we compare the initial OLS results from Model 7 in Table 1 with the outcomes from various robust regression techniques. The MM estimator (Models 4, 5, and 6 in Table A3) effectively addresses outliers by identifying and down-weighting them. These estimators are recognized for their high breakdown point of 50% and strong efficiency, maintaining 85% of the efficiency of OLS while handling up to 50% contamination from outliers. For comparison, we also present MM regressions with higher efficiency levels (95% and 99% of OLS efficiency).

The results presented in Table A3 further confirm our hypothesis. Countries with higher levels of corruption are more vulnerable to economic sanctions, experiencing significantly greater conflict and instability. In contrast, the impact of sanctions on instability is less pronounced in countries with lower levels of administrative corruption.

## **5.2. Using internal conflict index (ICRG) as dependent variable**

To analyze internal conflict, we use the Internal Conflict Index from the International Country Risk Guide (ICRG). The index is based on a 12-point scale divided into three components, each scoring up to 4 points: civil wars and coup threats, terrorism and political violence, and civil disorder. A score of 12 indicates a very low risk of internal conflict. To improve the interpretability of the coefficients, we rescaled the variable by subtracting each observation from 12, effectively inverting the scale. On the rescaled scale, scores range from 0 to 12, with 12 representing the highest risk of internal conflict.

In the cross-country model (see Table A4 in the Appendix A), the results reveal significant interaction effects between economic sanctions and corruption, highlighting a moderating role of corruption in the relationship between sanctions and internal conflict. The interaction coefficient is statistically

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<sup>4</sup> We repeated the robust regressions using jackknife standard errors. Our key finding—the positive interaction term between sanctions and corruption—remains robust after applying the jackknife procedure to the OLS, M, and MM regressions (at 95% and 99% efficiency).

significant and positive. This suggests sanctions are destabilizing internal stability of countries at higher levels of corruption. Specifically, in contexts where state capacity is already weakened by corrupt practices, sanctions exacerbate the risk of internal conflict. This finding supports the argument in the literature that corruption undermines government legitimacy and capacity, creating grievances among the population, which in turn increases the likelihood of internal instability.

### **5.3. Using external conflict index (ICRG) as dependent variable**

The External Conflict Index, also scored on a 12-point scale, assesses the risk posed to the incumbent government by foreign actions. These risks include non-violent external pressures, such as territorial disputes and sanctions, as well as violent external threats, including war. This variable has been rescaled so that higher values indicate a greater risk of external conflict (The PRS Group 2023).

Table A5 in Appendix A also presents a positive interaction term between sanctions and corruption on external conflict. Sanctions may reduce external conflict only in countries with low levels of corruption. In contrast, in countries with higher levels of administrative corruption, sanctions may increase the risk of external conflict. This finding raises questions about the effectiveness of economic sanctions as a tool for conflict resolution. The presence of corruption in political institutions can limit the effectiveness of sanctions, making it more difficult for sanctions to achieve their desired goal of reducing external aggression (Hufbauer et al., 2007). A corrupt government may rely on external conflict as a means of consolidating power and diverting attention from domestic problems.

### **5.4. Using government stability index (ICRG) as dependent variable**

The third aspect of instability examined in this study is government stability, a crucial goal for sanctioning states. Government stability refers to the ability of the incumbent government to remain in power, often reflecting public satisfaction and support for the administration. This support can be significantly affected by economic pressures and constraints on government resources. In this study, government stability is measured using a 12-point scale divided into three components: Government Cohesion, Legislative Strength, and Popular Support. To align this scale with other risk measures in the study, we rescaled the variable so that higher scores indicate a greater risk of destabilization for the incumbent government (The PRS Group 2023).

Using government stability as the dependent variable, the results indicate that U.S. economic sanctions have a negative effect, suggesting that sanctions increase government stability. This finding highlights the role of rally-around-the-flag effects, where government propaganda and nationalistic appeals strengthen the position of the incumbent government and stabilize it in the face of external pressure. These effects suggest that sanctions, despite their economic burden, may inadvertently increase government cohesion and legitimacy, at least in the short term (Kaempfer & Lowenberg, 2007; Peksen, 2021). However, the statistical significance for sanctions is absent in Models 6 and 7 indicating the importance of government type for government stability.

Corruption has a significant destabilizing effect on government stability, but it is only statistically significant in the final model. This suggests that as corruption increases, the government's ability to maintain stability is undermined, potentially weakening its hold on power. The interaction between sanctions and corruption is positive and statistically significant in Models 3 and 4, indicating that sanctions lead to greater government *instability* in countries with higher levels of corruption (see Table A6 in Appendix A).

## **6. Conclusion**

The United States has led the world in using sanctions, imposing about a third of all global sanctions from 1950 to 2019 (Kirikakha et al. 2021). This study examines how U.S. economic sanctions affect political instability and conflict risk, drawing on data from 126 countries over three decades (1996–2022) and using both cross-country and panel regressions. Our findings reveal that sanctions destabilize countries, but only those with high corruption. Countries with low to moderate levels of corruption are more resilient to U.S. sanctions.

These insights carry important policy implications. For sanctioning states, targeting corrupt regimes may be more effective in exerting pressure, as corruption weakens institutional stability and heightens public grievances. Conversely, for sanctioned states, improving governance and reducing corruption can mitigate the adverse effects of sanctions, enhancing political and economic stability. The success of sanctions depends not only on their design and enforcement but also on the domestic institutional environment of the target country. Our findings also align with the "rally around the flag" effect, where



low-corruption states may experience national solidarity during external crises, partially offsetting the negative effects of sanctions. In contrast, highly corrupt states with weak institutions and widespread discontent face a heightened risk of instability. This suggests that the relationship between sanctions and instability is not linear but highly contingent on governance quality.

More broadly, our findings suggest that economic sanctions are not a one-size-fits-all policy tool; their effectiveness and consequences are highly contingent on governance structures. Future research should further explore the mechanisms through which corruption interacts with sanctions, including the role of elite networks, informal economies, and state capacity. Case studies of specific sanctioned regimes may provide additional insights into how corruption moderates the economic and political effects of sanctions.

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## Appendix A

**Table A1: Literature review Summary**

Study	Focus	Data & Sample	Methodology	Main Findings	Policy Implications
Allen (2008)	The author aims to understand the mechanisms through which sanctions can effectively trigger a policy change in a targeted country and when grievance induced by economic hardship can translate into political unrest.	The author analyzed panel data from 1948 to 1997, using for the dependent variable CNTSA archive data, which measures two types of antigovernment activities: civil protest and rebellion. The key explanatory variables are sanction data (Marinov 2005) (updated HSE data) and Polity IV index.	The author applies negative binomial model analysis, including the interaction term between sanctions and the polity index. The author also tests the effect of three different sanctions: financial sanctions, imports and export Sanctions.	The models' results show a robust moderating effect of government type on the relationship between economic sanctions and internal conflict. Economic sanctions increase the probability of political demonstrations and conflict when the Polity IV is positive.	Economic hardships induced by sanctions effectively promote political unrest only when the opportunity cost of political action for the populace is low. Therefore, sanction senders should consider the targeted nation's political structure to ensure the success of their objectives.
Escribà-Folch (2010)	The study examines how sanctions influence civil war duration and how different types of sanctions can alter the outcome (military victory or negotiated settlement).	The author analysis panel data from 1914 to 2000, using sanctions data from (Marinov 2005)) and TIES and intrastate conflicts from (Fearon 2005). The study distinguishes between imposed sanctions and sanction threat. It also distinguishes institutional vs. non-institutional measures and tracks sanctions duration.	The author uses logit models to estimate the probability of civil war termination based on imposition and duration of sanctions and assesses whether institutional and non-institutional sanctions have different effects on the probability of a civil war outcome.	Sanctions significantly shorten the duration of civil wars. However, multilateral sanctions imposed increase the probability of reaching a negotiated settlement. In contrast, unilateral sanctions often lead to military victories. Further, multilateral arms embargoes reduce the likelihood of military victory.	Overall, sanctions are helpful in decreasing the duration of civil wars. However, to enhance conflict resolution mechanisms, multilateral sanctions are the most preferable type of sanctions, as they are most likely to pressure all conflict parties to a negotiated settlement.
Farzanegan & Gutmann (2024)	The study aims to develop supporting evidence of the effect of economic sanctions' intensity on internal conflict by analyzing the effect of economic sanctions on Iran using overall internal conflict and its subcomponents: civil war, civil disorder, and terrorism.	Time series using quarterly data between 2001Q2 and 2020Q3 in Iran. For internal conflict measurement, the authors used internal conflict and civil disorder, terrorism, and civil war risk from ICRG. Sanctions data was extracted from the sanction intensity index by (Laudati and Pesaran 2023).	A vector autoregressive (VAR) model with impulse response functions and variance decomposition analysis is applied to assess how internal conflict and its subcomponents respond to a positive shock in sanction intensity.	The main finding supports the notion that a positive shock in economic sanctions intensity increases internal conflict risk. Similarly, civil disorder and terrorism risk also increases in response to the shock, while civil war risk is reduced.	An increase in sanction intensity effectively destabilize the targeted country in the short term, increasing the risk of overall internal conflict in forms of civil disorder and terrorism. However, it simultaneously lowers the risk of civil war, supporting the notion of a rally-around-the-flag effect in response to foreign sanctions.
Gold, Hinz & Valsecchi (2024)	The focus of the study is to measure how economic sanctions imposed on Russia following the annexation of the	The analysis utilizes data from presidential elections (2008, 2012, 2018) and parliamentary elections (2007, 2011, 2016),	The author employs a Difference-in-Differences method across regions,	There was a significant increase of around 13% in regional support for Putin and his party in both	The analysis aims to shed light on the political cost associated with imposing sanctions. When targeting a regime like Russia,

	Crimea peninsula in 2014 affected the popularity of Putin's regime.	alongside regional-level variations in trade losses before and after the 2014 sanctions.	comparing election outcomes pre- and post-sanctions.	parliamentary and presidential elections in the regions affected mainly by economic sanctions. It appears more conservative voters rallied around the government in response to what was perceived as an external attack on Russia's sovereignty.	where the government has high capabilities to spread its propaganda, sanctions might amplify the rally-around-the-flag effect. In such cases, using smart-targeted sanctions might help mitigate the "rally-around-the-flag" effect.
Hufbauer (2007)	The study evaluates the effectiveness of sanctions in achieving foreign policy goals, such as regime change, modest policy changes, and military impairment. The author also aims to determine the political and economic variables affecting sanctions' outcomes.	Two hundred four sanctions episodes from 1914–2000, drawn from historical sources and classified by objective (modest change, regime change, etc.). Each episode is coded for outcome success and contribution of sanctions.	Case Study Approach: Each case abstract summarizes the key events of the episode, the sender's goals, the target's response, the attitudes of third countries, and the economic costs to both the target and sender. Further, probit and logit models are used to estimate the likelihood of a successful outcome of sanctions based on a wide range of explanatory variables.	Hufbauer emphasizes that only one-third of sanctions episodes achieve substantial success. However, success rates vary by goal: "modest" policy changes have a 50% success rate, while regime change and significant military impairments have only around 30%. International cooperation and higher trade dependency on sanction senders improve success probabilities.	Sanctions are most effective when they align with realistic goals, enjoy broad international support, and are paired with other policy tools. Overly ambitious goals, such as regime change, tend to have low odds of success. The author highlights that policymakers should tailor strategies to case-by-case analysis and avoid one-size policy to ensure higher effectiveness.
Marinov (2005)	The study aims to research the destabilizing effect of sanctions on the targeted country leaders.	A panel of 136 countries (population > 500,000), with 5,295 observations in the span of 1947–1999 is used. Sanctions data from (Hufbauer 2007), covering 1,181 sanction cases. Leader turnover data from (Chiozza and Goemans 2004), updated by (Goemans and Gleditsch 2004).	Logistic regression with fixed effects was used to estimate how sanctions affect the probability of leader rule termination. To reduce the risk of endogeneity, the author used one-year-lagged explanatory variables.	Targeted leaders subject to economic sanctions are 28% more likely to leave office in the year following the sanctions. This result holds while controlling country-specific government instability, economic conditions, political institutions, and use of force.	Economic sanctions can effectively destabilize incumbent leaders, potentially prompting policy change either by removing the non-compliant leader or pressuring them into concessions.

**Table A2. Three-year average panel results: Political instability and U.S. economic sanctions – the moderating role of corruption (1996-2022) – transformed explanatory variables**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Dep. Variable: Political instability WGI						
U.S. Economic Sanction	0.036 (0.224)	0.029 (0.180)	-0.672* (-1.847)	-0.732** (-2.220)	-0.751** (-2.308)	-0.118 (-0.239)	-0.421 (-1.031)
Corruption (ICRG)		0.058 (0.936)	0.016 (0.296)	0.003 (0.052)	0.001 (0.019)	0.022 (0.460)	0.024 (0.525)
Sanction × Corruption			0.185** (1.990)	0.197** (2.304)	0.190** (2.223)	0.116 (1.433)	0.137* (1.978)
Δ log (GDP pc)				-1.090*** (-3.990)	-1.100*** (-4.085)	-1.014*** (-3.745)	-0.636** (-2.125)
Δ Oil rents % GDP				0.004 (0.364)	0.008 (0.721)	0.009 (0.967)	-0.002 (-0.310)
Δ Youth bulge				0.038 (1.577)	0.059** (2.215)	0.057** (2.203)	0.047* (1.789)
Sanction × Δ Youth bulge					-0.062 (-1.248)	-0.079 (-1.548)	-0.058 (-1.180)
Military spending % GDP						0.059 (0.844)	0.022 (0.408)
Polity						0.056* (1.926)	0.044 (1.582)
Sanction × Polity						-0.062 (-1.572)	-0.030 (-0.902)
Polity^2						-0.010*** (-3.230)	-0.010*** (-3.298)
Gini							0.005 (0.331)
Inflation							0.009*** (4.426)
Secondary school							-0.001 (-0.452)
Δ Unemployment							0.011* (1.684)
Obs.	651	651	651	651	651	651	651
Within R-Squared	0.04	0.04	0.05	0.09	0.09	0.14	0.22

Country and period fixed effects are included. The t-statistics reported in parentheses are calculated using robust standard errors. The asterisks indicate the level of statistical significance: \* indicates  $p < 0.10$ , \*\* indicates  $p < 0.05$ , and \*\*\* indicates  $p < 0.01$ .



**Table A3. Robust regression**

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent Variable: Political Instability (WGI)					
	OLS regression	M regression (95% efficiency)	S regression (28.7% efficiency)	MM regression (85% efficiency)	MM regression (95% efficiency)	MM regression (99% efficiency)
U.S. Economic Sanction	-2.736*** (-3.796)	-2.973*** (-3.694)	-4.260*** (-15.339)	-3.438*** (-3.981)	-3.217** (-2.547)	-2.847*** (-3.291)
Corruption (ICRG)	0.218*** (3.222)	0.208*** (3.091)	0.252*** (4.045)	0.198*** (2.686)	0.218*** (3.295)	0.215*** (2.999)
Sanction × Corruption	0.491*** (2.910)	0.561*** (3.189)	0.536*** (8.219)	0.636*** (4.199)	0.599** (2.056)	0.518*** (2.644)
log (GDP pc)	-0.156* (-1.865)	-0.119 (-1.349)	-0.065 (-0.742)	-0.098 (-1.101)	-0.065 (-0.621)	-0.132 (-1.317)
Oil rents % GDP	0.006 (0.989)	0.005 (0.742)	0.001 (0.138)	0.004 (0.630)	0.002 (0.162)	0.006 (0.704)
Youth bulge	0.006 (0.330)	0.010 (0.518)	0.016 (0.651)	0.012 (0.710)	0.014 (0.718)	0.008 (0.433)
Sanction × Youth bulge	0.043*** (2.623)	0.047** (2.475)	0.096*** (7.517)	0.056*** (3.177)	0.050** (2.361)	0.046*** (2.691)
Military spending % GDP	0.062 (1.408)	0.070 (1.614)	-0.023 (-1.195)	0.063 (1.545)	0.083 (1.268)	0.067 (1.305)
Polity	-0.014 (-0.798)	-0.019 (-0.693)	-0.052*** (-5.535)	-0.027 (-0.761)	-0.026 (-1.023)	-0.017 (-0.808)
Sanction × Polity	0.078** (2.514)	0.069* (1.761)	0.073*** (3.491)	0.063 (1.382)	0.078 (1.545)	0.076** (2.035)
Polity^2	-0.006*** (-2.672)	-0.007** (-2.518)	-0.006* (-1.881)	-0.007** (-2.575)	-0.008*** (-3.224)	-0.007** (-2.521)
Gini	0.016* (1.929)	0.019* (1.683)	0.014*** (3.302)	0.016 (1.142)	0.020 (1.604)	0.017* (1.947)
Inflation	0.000 (0.019)	-0.000 (-0.012)	0.002** (2.235)	0.001 (0.299)	0.001 (0.259)	0.000 (0.042)
Secondary school	0.001 (0.513)	0.002 (0.560)	0.007* (1.726)	0.002 (0.753)	0.002 (0.862)	0.001 (0.545)
Unemployment	-0.024** (-2.144)	-0.027* (-1.839)	-0.041*** (-4.122)	-0.037* (-1.885)	-0.031* (-1.670)	-0.026** (-2.016)
Rsq.	0.83	0.75	0.49	0.65	0.72	0.77
Breakdown point.			50	50	50	50
Hausman test of S against OLS (p-value)			0.00			
Hausman test of MM against S (p-value)				0.44	0.91	0.00
Countries	126	126	126	126	126	126

The t-statistics reported in parentheses are calculated using robust standard errors. Constant term and regional dummies are included but not reported. The asterisks indicate the level of statistical significance: \* indicates  $p < 0.10$ , \*\* indicates  $p < 0.05$ , and \*\*\* indicates  $p < 0.01$ .

**Table A4. Cross country regression results. Internal conflict and U.S. economic sanctions: moderating role of corruption (1996-2022)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Dep. Variable: Internal conflict (ICRG)						
U.S. Economic Sanction	1.468*** (3.333)	0.654 (1.493)	-2.769** (-2.020)	-2.770** (-2.010)	-2.923** (-2.119)	-2.324* (-1.837)	-2.705** (-2.029)
Corruption (ICRG)		0.569*** (6.218)	0.449*** (5.132)	0.298** (2.289)	0.334** (2.598)	0.209* (1.744)	0.217* (1.813)
Sanction × Corruption			0.920*** (2.912)	0.911*** (2.923)	0.761** (2.197)	0.575* (1.857)	0.618* (1.923)
log (GDP pc)				-0.150 (-0.971)	-0.154 (-0.982)	-0.109 (-0.738)	-0.161 (-1.075)
Oil rents % GDP				0.004 (0.374)	0.005 (0.406)	0.010 (0.885)	0.017 (1.374)
Youth bulge				0.016 (0.558)	0.004 (0.102)	-0.012 (-0.346)	-0.021 (-0.558)
Sanction × Youth bulge					0.028 (0.792)	0.034 (0.905)	0.042 (1.110)
Military spending % GDP						0.134 (1.634)	0.141* (1.846)
Polity						0.035 (1.369)	0.034 (1.331)
Sanction × Polity						0.036 (0.754)	0.057 (1.075)
Polity^2						-0.015*** (-4.327)	-0.017*** (-4.752)
Gini							0.025 (1.649)
Inflation							0.000 (0.060)
Secondary school							0.002 (0.409)
Unemployment							-0.045* (-1.936)
Adj.R2	0.44	0.56	0.59	0.59	0.59	0.65	0.66
Obs.	126	126	126	126	126	126	126

Country and period fixed effects are included. The t-statistics reported in parentheses are calculated using robust standard errors. The asterisks indicate the level of statistical significance: \* indicates  $p < 0.10$ , \*\* indicates  $p < 0.05$ , and \*\*\* indicates  $p < 0.01$ .

**Table A5. Cross country regression results. External conflict and U.S. economic sanctions: moderating role of corruption (1996-2022)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Dep. Variable: External conflict (ICRG)						
U.S. Economic Sanction	0.766*	0.025	-3.637***	-3.714***	-3.414***	-4.514***	-4.950***
	(1.796)	(0.057)	(-3.216)	(-3.085)	(-2.887)	(-3.415)	(-3.845)
Corruption (ICRG)		0.518***	0.389***	0.283*	0.214	0.080	0.046
		(4.679)	(3.438)	(1.870)	(1.380)	(0.563)	(0.313)
Sanction × Corruption			0.985***	0.994***	1.286***	1.307***	1.348***
			(3.688)	(3.549)	(3.923)	(4.092)	(4.426)
log (GDP pc)				-0.150	-0.143	-0.144	-0.109
				(-0.970)	(-0.930)	(-0.976)	(-0.709)
Oil rents % GDP				-0.002	-0.003	-0.013	-0.008
				(-0.123)	(-0.207)	(-1.091)	(-0.701)
Youth bulge				-0.002	0.022	-0.006	-0.031
				(-0.068)	(0.630)	(-0.174)	(-0.889)
Sanction × Youth bulge					-0.055	-0.027	-0.015
					(-1.515)	(-0.645)	(-0.383)
Military spending % GDP						0.278***	0.305***
						(3.044)	(3.312)
Polity						-0.055*	-0.060*
						(-1.707)	(-1.965)
Sanction × Polity						0.094*	0.114**
						(1.847)	(2.205)
Polity^2						-0.004	-0.005
						(-1.034)	(-1.026)
Gini							0.012
							(0.663)
Inflation							-0.002
							(-0.509)
Secondary school							-0.010
							(-1.597)
Unemployment							-0.031*
							(-1.687)
Adj.R2	0.12	0.27	0.33	0.32	0.32	0.42	0.43
Obs.	126	126	126	126	126	126	126

Country and period fixed effects are included. The t-statistics reported in parentheses are calculated using robust standard errors. The asterisks indicate the level of statistical significance: \* indicates  $p < 0.10$ , \*\* indicates  $p < 0.05$ , and \*\*\* indicates  $p < 0.01$ .

**Table A6. Cross country regression results. Government stability and U.S. economic sanctions: moderating role of corruption (1996-2022)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Dep. Variable: Government stability (ICRG)						
U.S. Economic Sanction	0.123 (0.484)	-0.007 (-0.027)	-2.068** (-2.296)	-2.224** (-2.275)	-2.411** (-2.353)	-0.884 (-1.028)	-0.945 (-1.168)
Corruption (ICRG)		0.091 (1.086)	0.019 (0.220)	0.026 (0.262)	0.070 (0.665)	0.126 (1.496)	0.161* (1.830)
Sanction × Corruption			0.554** (2.520)	0.587** (2.439)	0.405 (1.566)	0.254 (1.438)	0.242 (1.346)
log (GDP pc)				-0.065 (-0.559)	-0.070 (-0.603)	-0.124 (-1.200)	-0.161 (-1.471)
Oil rents % GDP				-0.019* (-1.711)	-0.019 (-1.631)	0.003 (0.309)	0.006 (0.594)
Youth bulge				-0.014 (-0.599)	-0.029 (-1.177)	-0.010 (-0.506)	-0.003 (-0.144)
Sanction × Youth bulge					0.034 (1.237)	0.007 (0.247)	0.007 (0.296)
Military spending % GDP						-0.031 (-0.546)	-0.031 (-0.539)
Polity						0.117*** (5.118)	0.121*** (5.677)
Sanction × Polity						-0.037 (-0.970)	-0.023 (-0.669)
Polity^2						-0.004 (-1.440)	-0.005 (-1.594)
Gini							0.005 (0.421)
Inflation							0.003 (1.436)
Secondary school							0.007* (1.756)
Unemployment							-0.030* (-1.919)
Adj.R2	0.10	0.11	0.15	0.19	0.19	0.46	0.47
Obs.	126	126	126	126	126	126	126

Country and period fixed effects are included. The t-statistics reported in parentheses are calculated using robust standard errors. The asterisks indicate the level of statistical significance: \* indicates  $p < 0.10$ , \*\* indicates  $p < 0.05$ , and \*\*\* indicates  $p < 0.01$ .